Dr. Robert S. Morison, Director Medical and Natural Sciences The Rockefeller Foundation 111 West 50th Street New York 20. New York

Dear Bob: 1

I was very pleased by your letter and especially by the essays, which I am now returning. Your book for teenagers has a lot of wisdom, both for science and for history, and I hope it will not be overlooked as an important contribution to serious criticism because of its professed audience.

You raise so many issues -- really all the issues -- that there might be little purpose in pursuing a discussion of them through such a clumsy medium as correspondence. I found nothing in your writing that I disagreed with, unless it was some position that I have held at some time and have since, at least for the moment, altered only in respect of emphasis. I might comment on perhaps two points in some detail:

- i. I would now put far more emphasis on the importance of culture in defining the bounds and aspirations of human existence even than you do. It is well enough to talk about the cultural relativism of values, but I think we delude ourselves in thinking that we can stand outside our own culture and pretend to evaluate it on some more cosmically objective basis. I am proposing that culture defines even such things as consciousness, individuality, as well as what we call scientific reasoning, esthetics and morals. It is culture that makes us human (the genotype has made this possible) and if there are goels of human existence, it is culture that frames them. The relativists have been saying this for a long time, but in a more pejorative sense, somehow inferring that the cultural okigin of our value system makes it less meaningful.
- 2. On statistical responsibility. If the function of an ethical system is to minimize the number of deaths in England and Wales, your argument would be incontestible. Its function as I see it is to make society possible and meaningful and to provide for self-respect. I think we must learn to make a very clear distinction between sins of omission and statistical responsibility, and those of personal culpability. After all, I could put it to you, personally, that it is within your power to achieve a substantial reduction in infant mortality in England or anywhere else that you chose to devote your unremitting efforts. Perhaps none of us would be so lenient with himself, but certainly I would not call you to account for this crime of omission. There is, after all, an infinite array of such

crimes -- we will not soon reach absolute perfection -- and I wonder if we really advance the cause of moral responsibility by over-stressing them. This is now a criticism of a proposition I have put forward myself, for example, that it was as immoral to not investigate antimutagenic chemicals that could alleviate spontaneous mutation and to apply existing knowledge on a large scale as it was to commit the positive act of increasing back-bround radioactivity.

Any such discussion of problems along these lines always tends to leave me both helpless and hopeless with respect to the specific contribution that I am personally qualified to make or discuss. I do, however, repeatedly come back to one particular conclusion, that many of the problems we foresee are the result not only of too much technology, but an imbalance in it, and that as scientists we have the particular responsibility of pointing out those discrepancies which are amenable to technological attack. In all, the University emerges as a more and more badly needed organ for the accomplishment of these social functions, but where will we find one?

Sincerely yours.

Joshua Lederberg Professor of Genetics